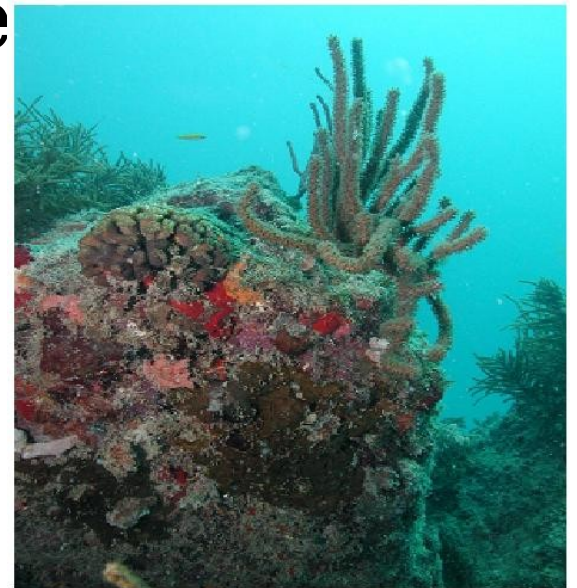
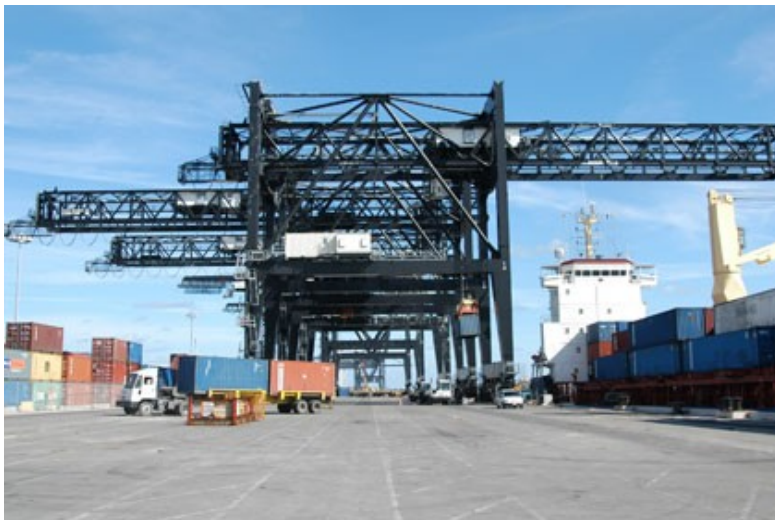
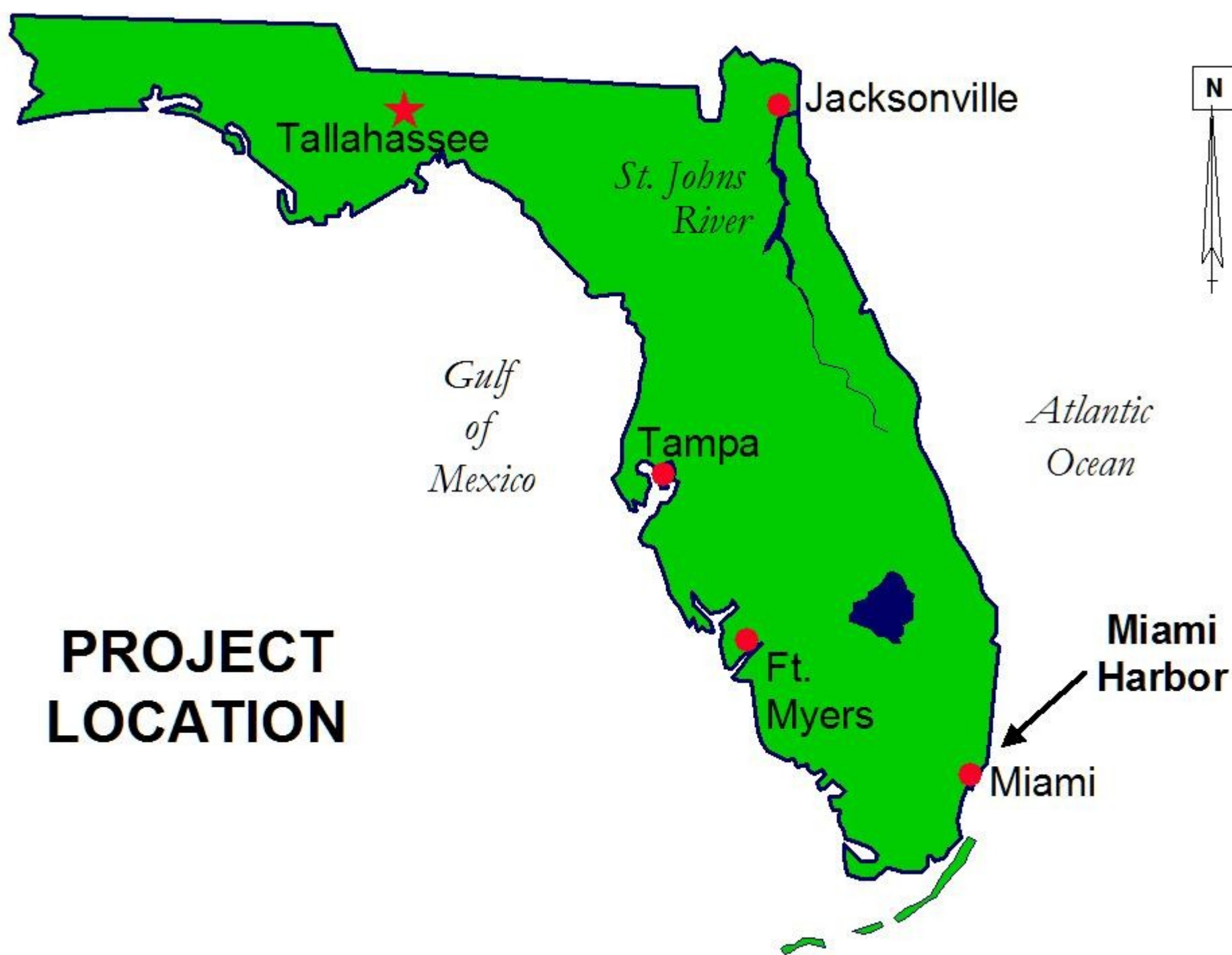


Miami Harbor, FL Navigation Study

Step 1 - Specify Problems &
Opportunities

Step 2 - Inventory & Fore
e Conditio



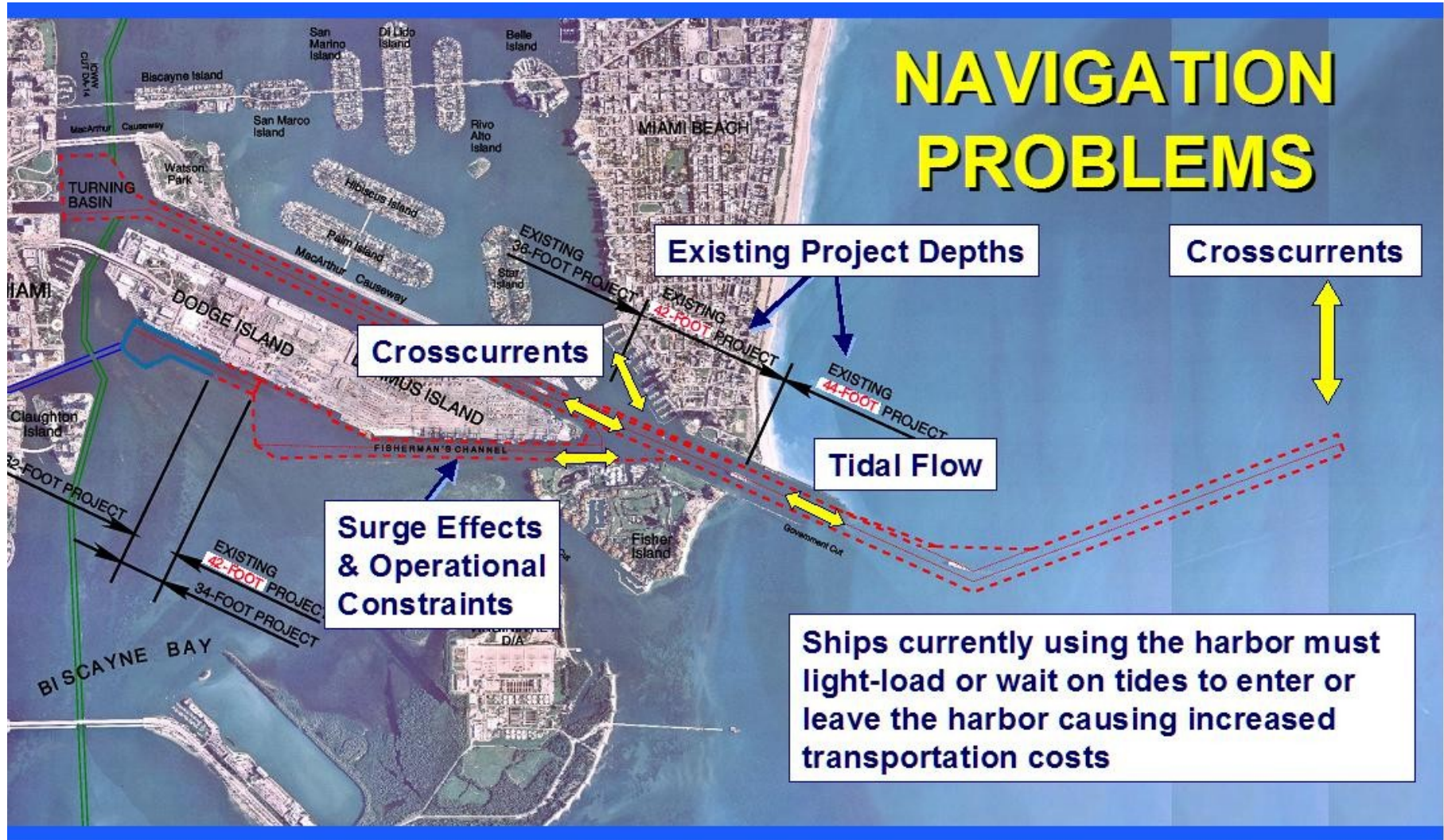




Problems & Opportunities – Navigation

- Ships currently using the harbor must light-load or wait on tides to enter or leave the harbor causing increased transportation costs
 - Existing Project Depths
 - Tidal Flow
- Crosscurrents
- Surge Effects & Operational Constraints

NAVIGATION PROBLEMS



Miami Harbor, Florida

Problems & Opportunities - Environmental Resources

- Seagrasses
- Hardbottoms and Reefs
- Threatened and Endangered Species
- Designated Critical Habitat (ESA)
- Non-ESA Protected Marine Mammals

[illegible]

Without-Project Conditions

Socio-Economic

Trend toward utilization of larger
container ships, larger cruise ships_
Continued economic growth/ business
activity

Environmental: Aquatic, wetland & nesting
habitat will continue to be lost/degraded
due to dredging/disposal and
development.

Without-Project Conditions (continued)

Navigation

- Increased commodity shipments
2000 ~ 8 MT; 2059 ~ 122 MT
- Increased groundings
- Increased delays
- Major Assumptions
 - Panama Canal?
 - Projections for major commodities?

Major Commodity Projections

Containers, Ro-Ro, Lo-Lo

- Projection: 13 MT ~ 2009; 78MT ~ 2059;
- Actual: 8 MT ~ 2000; 9 MT ~ 2005

Cruise Passengers

- Projection: 4M ~ 2009; 11M ~ 2059;
- Actual: 3.3M ~ 2000; 3.6 MT ~ 2005

National Objectives

1. To improve the efficiency and safety of the deep draft navigation system.
2. To maintain or enhance the quality of the area's coastal and estuarine resources.

Planning Objectives

1. Improve the level of navigation safety
2. Improve economic efficiency, and
3. Improve environmental conditions and minimize adverse environmental consequences.

Planning Constraints

- Structural
 - Fisher Island Development
- Environmental
 - Bill Sadowski Critical Wildlife Area (CWA)

Implementation Responsibilities

Navigation

- USACE - General navigation features
- USCG - Navigation aids
- Non-Federal - Local service facilities
- N-F Sponsor & Utility owners - Relocations

Environmental Resources

- USACE - dredging/disposal; beneficial use? ecosystem restoration?
- Non-Federal - development controls